

ENERGY EFFICIENCY IN NEW HOUSING

Site practice for tradesmen

External walls: Partial fill insulation



Partial fill insulation boards are built into the wall as construction proceeds, with a clear cavity of 50 mm being retained.

The insulation boards should be fixed tight against the inner leaf to prevent cold air movement, and retained in place by clips pushed onto the wall ties. To ensure the cavity is not bridged by mortar, causing damp problems, a good standard of workmanship must be maintained in building the wall. The following construction sequence is recommended.

- Place batten on previous work
- Build inner leaf to one course above the height of the insulation boards
- Clean off mortar snots from cavity face then remove batten
- Fit insulation boards between wall ties so that boards fit tightly together
- Secure boards using retaining clips
- Build outer leaf level to the top of the insulation
- Repeat until wall is complete

Use a batten during bricklaying to stop mortar building up on top of the insulation, and dropping down the cavity. This could allow rainwater to cross the cavity to the inner leaf. Insulation boards may be specified to start below dpc, but the first row of boards should have each board supported on at least two wall ties.

To help ensure a successful installation and good performance from the completed wall follow the points on the back of this leaflet.

REMEMBER

Workmanship is one of the most important factors in preventing rain penetration



Energy Efficiency Office
DEPARTMENT OF THE ENVIRONMENT

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POINTS TO FOLLOW

- Store boards in a dry place prior to use
- Solidly fill all mortar joints and frogs, in particular perpend in the outer leaf
- Maintain overall wall thickness within specified wall tolerances
- Keep all joints between insulation boards tight and free of mortar
- Fix insulation boards the right way up
- Install insulation boards with vertical joints staggered
- Build in insulation boards, do not push them into the cavity
- Cut boards square with a sharp knife or saw
- On a gable end fit boards right up to verge. If stopped at a lower level fit a cavity tray immediately above the last row of boards
- Protect partially finished work from rain



Use a batten to keep the cavity clear of mortar



Course horizontal joints in boards with wall ties

Use the specified type of wall tie and retaining clip. Ensure drip is central in cavity



Cut boards to fit around openings, leave no gaps

At corners, tightly butt insulation boards together



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